

SHEET SPECIFIC NOTES

SHEET #402-4:

- 1. STREETLIGHTS SHALL BE MOUNTED ON THE PROPERTY LINE BETWEEN PRIVATE LOTS AND WITH A MINIMUM DISTANCE OF 4 FEET FROM ANY PRIVATE DRIVE TO THE EDGE OF THE POLE BASE.
- 2. ALTERNATE STREETLIGHTS ALONG EACH SIDE OF THE STREET. WIRING FOR THE OPPOSITE SIDE OF THE STREET SHALL CROSS AT EACH STREETLIGHT LOCATION WITH CONDUIT SWEEPS AS SHOWN. PROVIDE PULL BOXES AS REQUIRED TO NOT EXCEED 360° BETWEEN PULL LOCATIONS.
- 3. STREETLIGHTS SHALL BE SPACED A NOMINAL SPACING OF 150 FEET FROM FOLLOWING LIGHT ON OPPOSITE SIDE OF ROAD AND 300 FEET FROM FOLLOWING LIGHT ON THE SAME SIDE OF ROAD, LOCATED AT THE NEAREST PROPERTY LINES.
- 4. STREETLIGHTS MOUNTED ON THE OUTSIDE RADIUS OF A CURVED ROAD SHALL BE SUCH THAT THE STREETLIGHTS WILL BE SPACED A NOMINAL SPACING OF 300 FEET APART, AT THE NEAREST PROPERTY LINE.
- 5. STREETLIGHTS MOUNTED ON THE INSIDE RADIUS OF A CURVED ROAD SHALL BE SPACED SUCH THAT THEY ARE CENTERED BETWEEN THE TWO STREETLIGHTS ON THE OUTSIDE RADIUS, AT THE NEAREST PROPERTY LINE.

SHEET #402-5:

- 6. EACH LOCAL STREET INTERSECTION MUST HAVE ONE STREETLIGHT MOUNTED TO ONE CORNER. COLLECTOR LEVEL AND HIGHER LEVEL STREETS SHALL HAVE TWO STREET LIGHTS MOUNTED AT OPPOSING CORNERS. ALL SUBSEQUENT STREETLIGHTS TO BE MOUNTED A MINIMUM OF 75 FEET AWAY FROM THE INTERSECTION CORNERS, AT THE NEAREST PROPERTY LINE.
- 7. PROVIDE CONDUIT SWEEPS AT INTERSECTION CORNERS AS REQUIRED. DO NOT EXCEED A MAXIMUM BEND OF 360° BETWEEN PULL LOCATIONS.
- 8. CONDUIT CROSSING THE ROAD SHALL TAKE THE SHORTEST PATH AVAILABLE WITHOUT CROSSING A CORNER OF AN INTERSECTION.
- 9. PROVIDE ONE PULL BOX IN EACH LANDSCAPE STRIP AS SHOWN WHEN CROSSING A ROAD WHERE THERE IS NOT A STREETLIGHT ON EITHER SIDE OF THE CROSSING.

SHEET #402-6:

- 10. ORIENT PEDESTAL SO THAT LIGHTING CONTROL PANEL FACES ROADWAY.
- 11. FOLLOW PEDERNALES ELECTRIC COOPERATIVE INC. DRAWING NUMBER 520-010-0911 AND 520-009-0911 FOR PEDESTAL BASE CONSTRUCTION.

SHEET #402-7:

- 12. EACH CONTROL PEDESTAL HAS AN ASTRONOMICAL TIME SWITCH, INTERMATIC MODEL #TALENTO 882 PRO.
- 13. PER 2014 NATIONAL ELECTRICAL CODE (NEC) ARTICLE 409.108, ENCLOSURE SHALL BE LABELED "SUITABLE FOR USE ONLY AS

SHEET SPECIFIC NOTES

SERVICE EQUIPMENT". ENCLOSURE SHALL COMPLY WITH ALL OTHER MARKING REQUIREMENTS FOUND IN ARTICLE 409.110.

SHEET #402-8:

- 14. CONNECT ONE #6 BARE COPPER CONDUCTOR FROM THE NEUTRAL BUSS TO THE GROUND ROD IN THE PEDESTAL BASE. CONNECTION TO THE GROUND ROD MAY BE EITHER EXOTHERMIC WELD OR MECHANICAL FITTING RATED FOR DIRECT BURIAL.
- 15. ALL CIRCUIT BREAKERS SHALL HAVE A MINIMUM INTERRUPTING CAPACITY OF 10KAIC.

SHEET #402-9:

- 16. COORDINATE PLACEMENT OF PEDESTAL WITH ALL OTHER UNDERGROUND UTILITIES. INSTALL PEDESTAL ON A "DRY" LOT LINE UNLESS IN CONFLICT WITH UTILITY EQUIPMENT, WHERE A MINIMUM OF 3' SPACING IS REQUIRED. PEDESTAL SHALL NOT BE INSTALLED NEXT TO A COMBINATION TRANSFORMER PAD.
- 17. IF A PEDESTAL MUST BE INSTALLED NEXT TO A UTILITY TRANSFORMER, CONTRACTOR SHALL SUBMIT A PLAN TO THE CITY OF LEANDER ENGINEER SHOWING PEDESTAL PLACEMENT, CONDUIT ROUTING, AND ALL OTHER DETAILS NECESSARY TO MINIMIZE CONFLICTS WITH ALL UNDERGROUND UTILITIES. PLAN MUST BE APPROVED BY CITY ENGINEER PRIOR TO THE START OF CONSTRUCTION.
- 18. ALL PULL BOXES SHALL BE A HUBBELL QUAZITE 11"x18"x18".
- 19. ANY WIRE JUNCTIONS SHALL BE MADE IN EITHER LIGHT POLE HAND HOLE OR PULL BOX. ALL JUNCTIONS SHALL BE MADE WITH THOMAS & BETTS PART NUMBER USK 2/0.

SHEET #402-10:

- 20. DYU 6 CONNECTORS MAY BE ELIMINATED FOR LAST POLE IN CIRCUIT. IF A CONDUCTOR SIZE CHANGE IS NECESSARY AT THE LAST POLE, USE THOMAS & BETTS PART NUMBER SDK M.
- 21. ALL UNDERGROUND CONDUITS SHALL BE SCHEDULE 80 PVC.

GENERAL NOTES

- 1. THESE STANDARDS APPLY TO RESIDENTIAL ROADWAY LIGHTING ONLY. ANY LIGHTING FOR OTHER ROADWAY TYPES SUCH AS ARTERIAL, COLLECTOR, HIGHWAY, ETC. SHALL BE DESIGNED BASED ON A PHOTOMETRIC STUDY IN ACCORDANCE WITH THE IESNA RP-8-14 STANDARD AND APPROPRIATE ROADWAY CLASSIFICATION.
- 2. ANY DEVIATIONS FROM THE FOLLOWING STANDARDS SHALL REQUIRE CONSTRUCTION DOCUMENTS WITH AN ENGINEERS SEAL, SIGNATURE, AND DATE OF SIGNATURE. SUBMIT TO THE CITY OF LEANDER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
- 3. REFER TO CITY OF LEANDER DETAIL #402-1 AND #402-2 FOR STANDARD POLE BASE, POLE, AND STREETLIGHT SELECTION.
- 4. THE CONTRACTOR SHALL PROVIDE POWER TO A MINIMUM OF TEN STREETLIGHTS PER CONTROL PEDESTAL WITH THE INTENT TO DEPLOY AS FEW CONTROL PEDESTALS AS POSSIBLE. A SINGLE CONTROL PEDESTAL IS SIZED SUCH THAT IT MAY FEED A MAXIMUM OF 4 CIRCUITS WITH 10 STREETLIGHTS EACH.
- 5. ACCOMMODATION MUST BE MADE FOR PHASED DEVELOPMENTS. ARRANGE STREETLIGHTS AND CIRCUITS SUCH THAT SPARE CIRCUITS IN CONTROL PEDESTAL ARE AVAILABLE TO SERVE FUTURE PHASES WITHOUT THE NEED FOR ADDITIONAL LIGHTING CONTROL PEDESTALS. PROVIDE CONDUIT AND PULL BOXES AT THE BOUNDARY OF EACH ADJOINING PHASE SO THAT SUBSEQUENT PHASES MAY BE EASILY TIED IN TO THE EXISTING LIGHTING CONTROL PEDESTAL.
- 6. ALL STREETLIGHT BRANCH CIRCUIT WIRING SHALL BE #10AWG UNLESS OTHERWISE NOTED. MAXIMUM BRANCH CIRCUIT DISTANCE IS 2000' OF WIRE, AND THE MAXIMUM NUMBER OF STREETLIGHTS PER BRANCH CIRCUIT IS (10). IF CIRCUITS OR STREETLIGHT QUANTITIES MUST EXCEED THESE NUMBERS, THE SEALING ENGINEER IS RESPONSIBLE FOR PERFORMING VOLTAGE DROP CALCULATIONS DEMONSTRATING THAT THE CALCULATED VOLTAGE DROP IS AT A TOLERABLE LEVEL PER NEC ARTICLE 215.2.

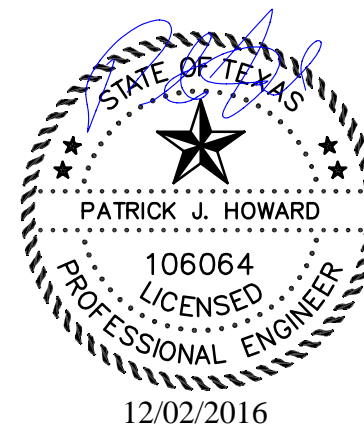
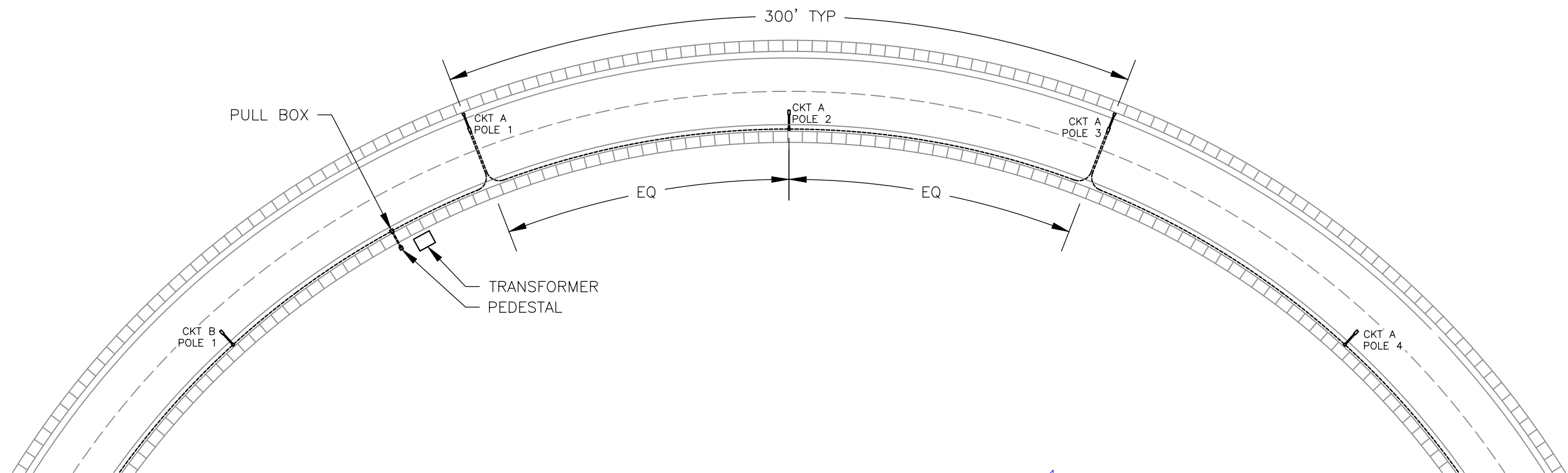
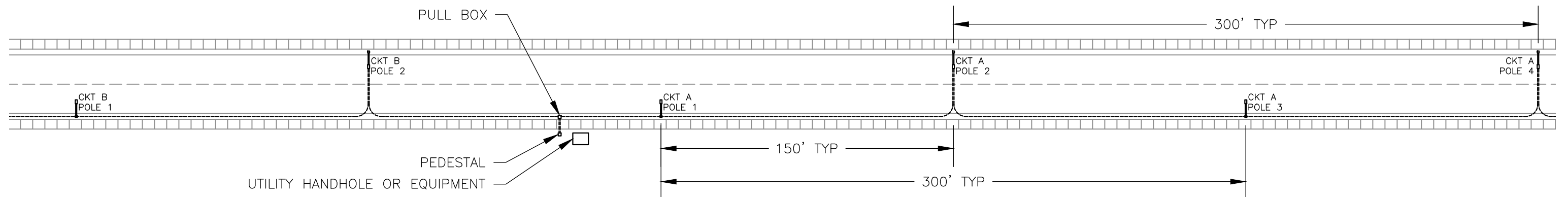


City of Leander, Texas

DETAIL #402-3

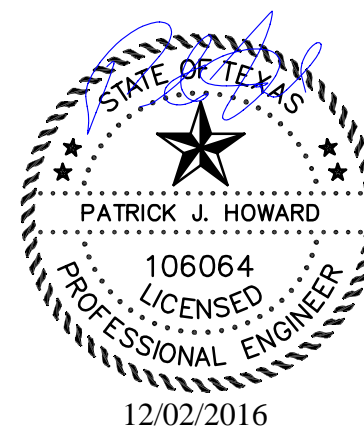
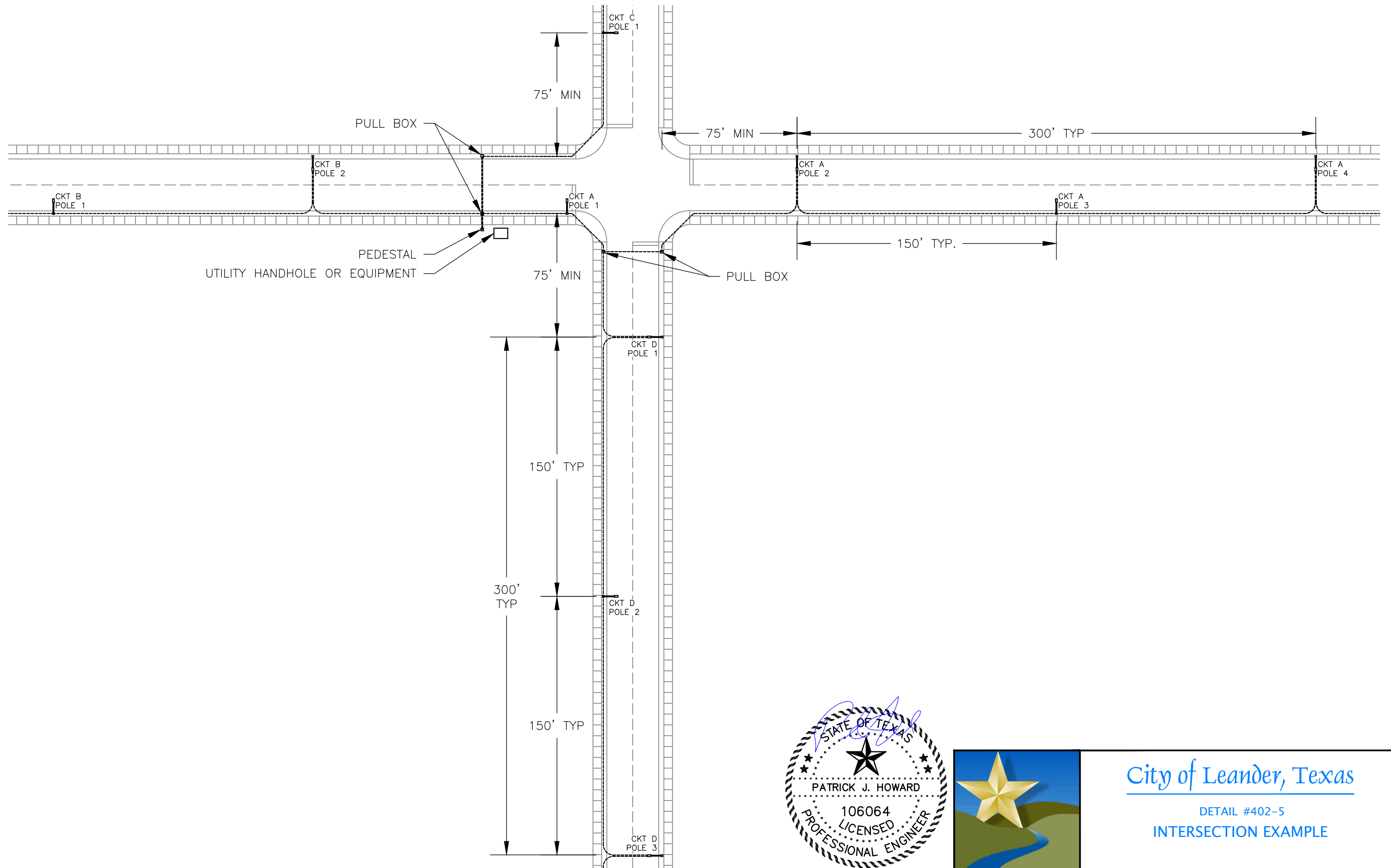
RESIDENTIAL ROADWAY LIGHTING NOTES

CONSTRUCTION SET



City of Leander, Texas
 DETAIL #402-4
 STRAIGHT AND CURVED EXAMPLES

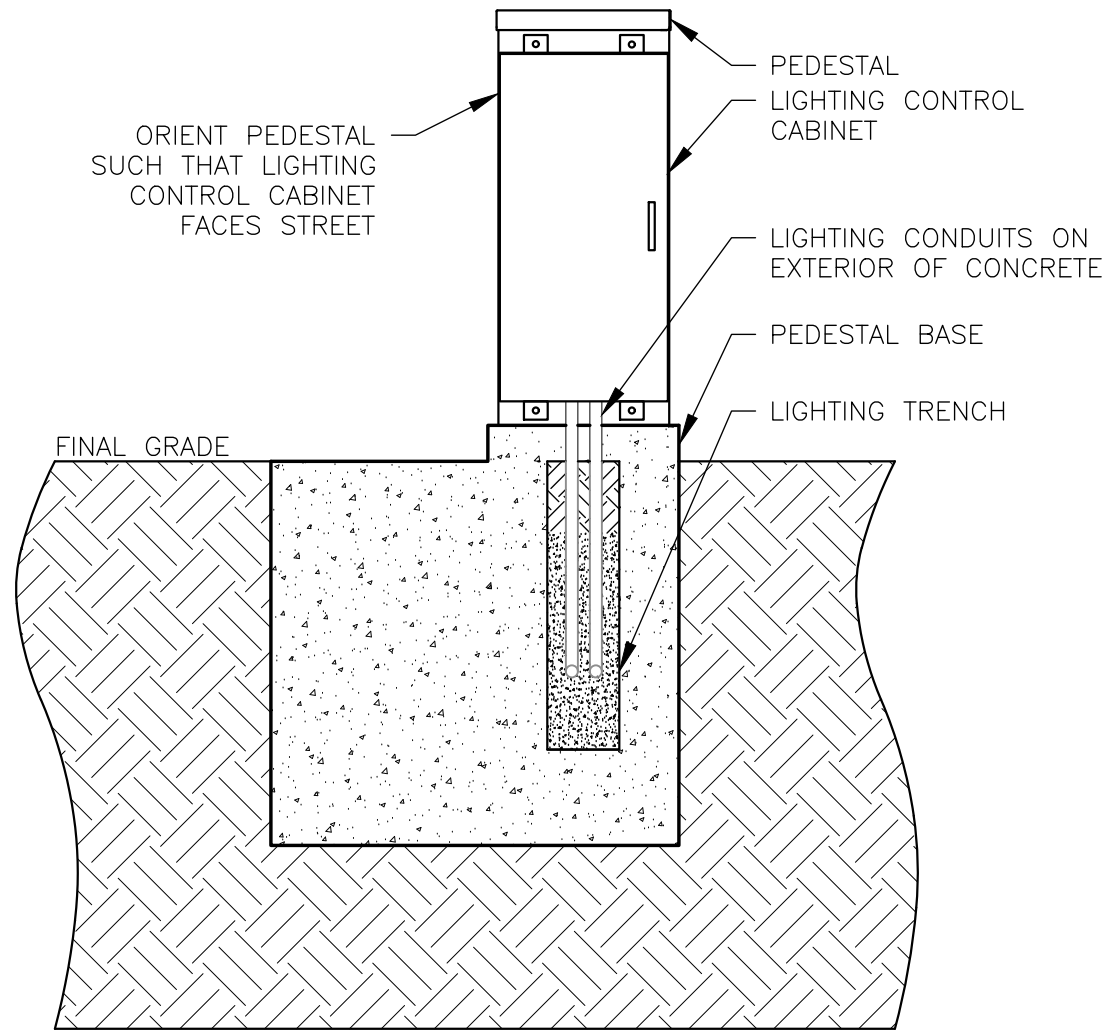
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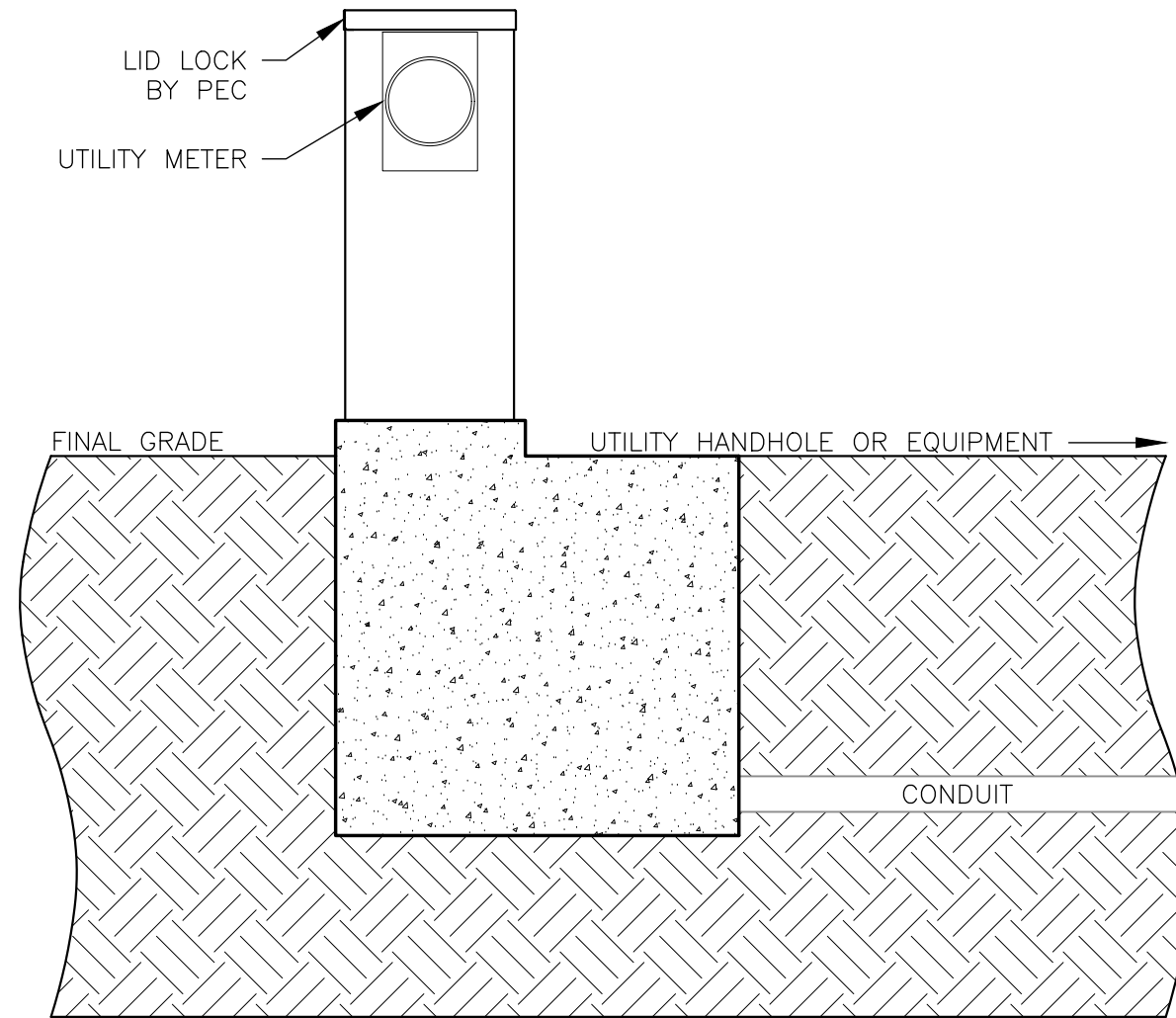
City of Leander, Texas

DETAIL #402-5
INTERSECTION EXAMPLE

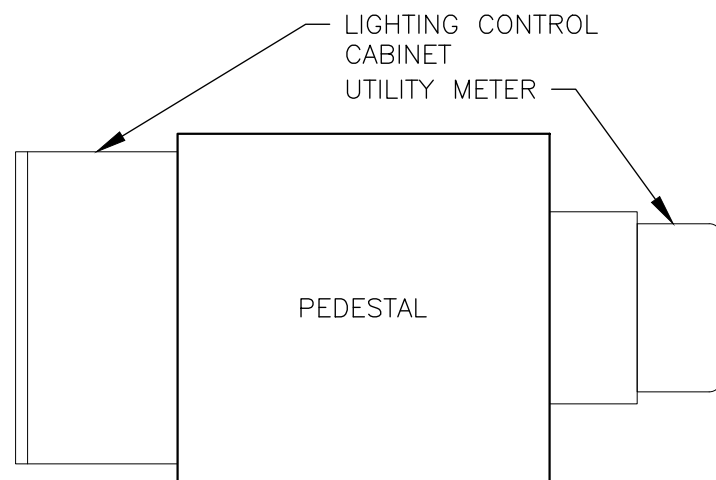
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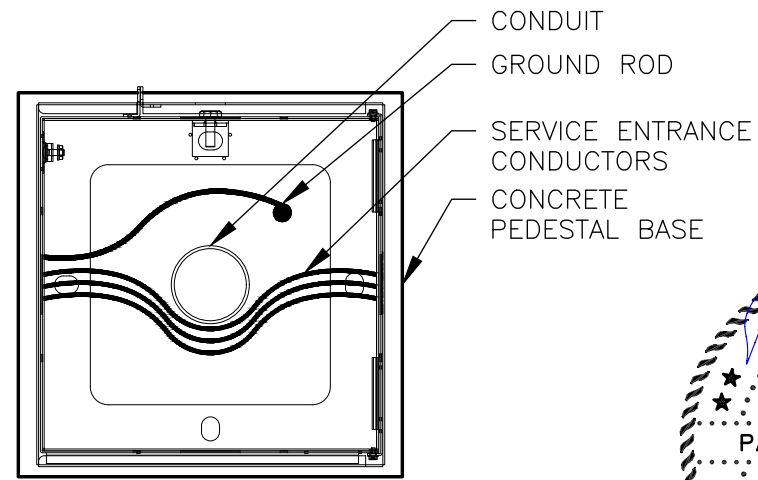
1 FACING ROADWAY
SCALE 1:16



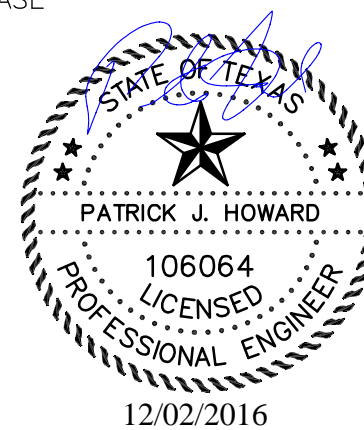
2 FACING RIGHT OF WAY
SCALE 1:16



3 EXTERIOR TOP
SCALE 1:8



4 INTERIOR BOTTOM
SCALE 1:8



City of Leander, Texas
DETAIL #402-6
METER AND CONTROL PEDESTAL VIEWS

CONSTRUCTION SET

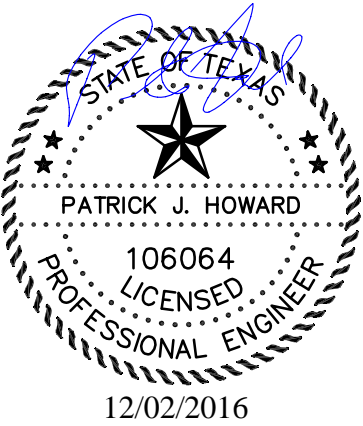
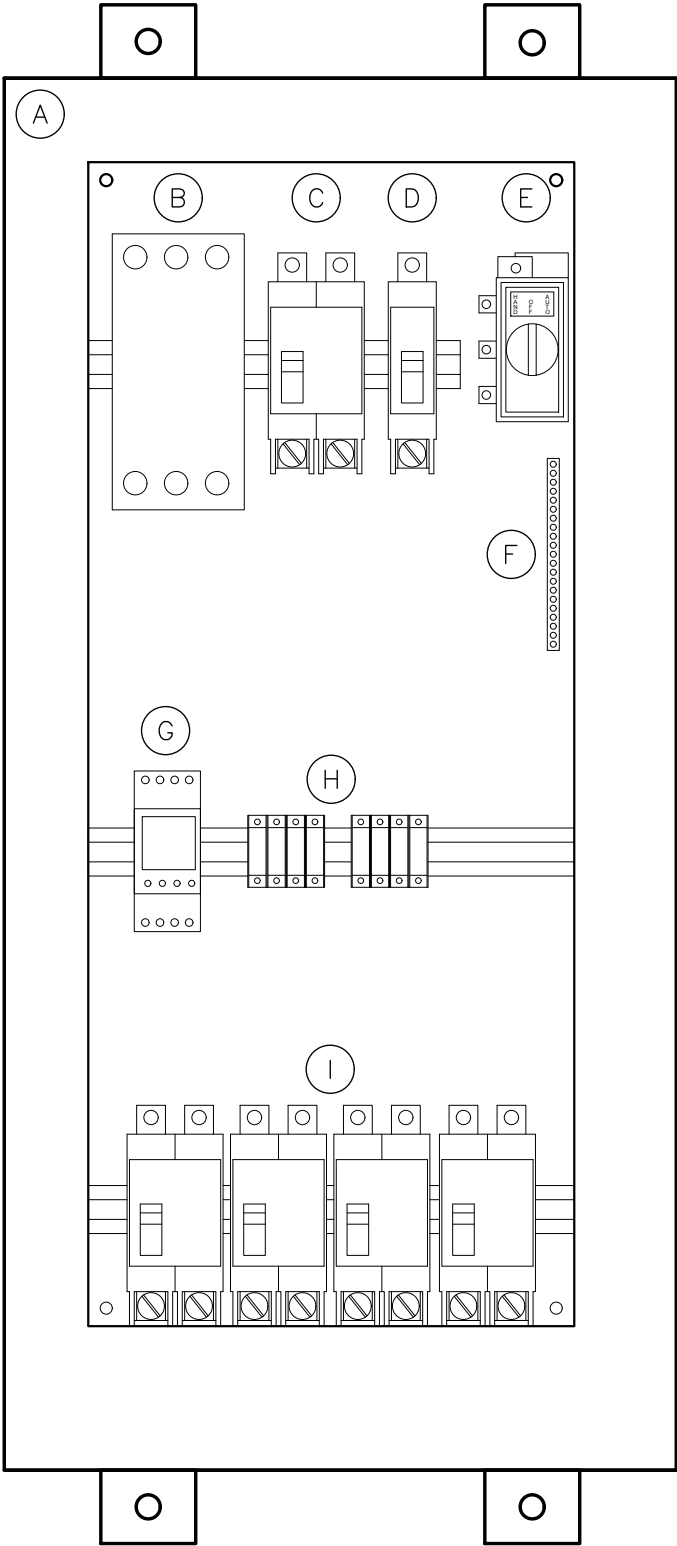
CONTROL PEDESTAL NOTES

- 1. EACH LIGHTING CONTROL PEDESTAL SHALL HAVE THE MAJOR COMPONENTS LISTED BELOW.
- 2. MINOR ASSEMBLY ITEMS SUCH AS DIN RAILS, MOUNTS, FASTENERS, TIE BASES, ETC. ARE NOT SPECIFICALLY ENUMERATED AND MUST BE PROVIDED BY THE DEVELOPER IN ORDER TO ENSURE A COMPLETE AND FUNCTIONAL CONTROL CABINET.
- 3. EXCEPTING THE PEDESTAL, ENCLOSURE, AND TIME SWITCH, SIEMENS, EATON, AND SQUARE D ARE ACCEPTABLE MANUFACTURERS OF MAJOR COMPONENTS. SIEMENS PART NUMBERS ARE LISTED BELOW AS A STANDARD OF QUALITY.
- 4. MIXED MANUFACTURERS OF MAJOR COMPONENTS ARE NOT ALLOWED IN A CONTROL PANEL.
- 5. ALL CONTROL PANELS IN A NEIGHBORHOOD MUST HAVE THE SAME COMPONENTS FROM THE SAME MANUFACTURER.
- 6. ALL PEDESTAL ENCLOSURES SHALL HAVE PROVISIONS FOR LOCKING, AND SHALL BE COMPATIBLE WITH STANDARD PADLOCK SHANKS.

PEDESTAL:
MILBANK CATALOG # S9650-0

UTILITY METER SOCKET:
SIEMENS CATALOG # SUAT111-OPQG

CONTROL CABINET:	
A: ENCLOSURE:	AMERITEX WS3R-321408
B: CONTACTOR:	SIEMENS CATALOG # LEN00D003120B
C: MAIN BREAKER:	SIEMENS CATALOG # BQ2B040QLD-TC1Q1
D: CONTROL BREAKER:	SIEMENS CATALOG # BQ1B010QLD-TC1Q1
E: HOA SWITCH:	SIEMENS CATALOG # 49SBSB1
F: NEUTRAL BUS:	SIEMENS CATALOG # ECGB14
G: TIME SWITCH:	INTERMATIC TALENT0882 PRO
H: POWER DISTRIBUTION:	SIEMENS CATALOG # 8WA1
I: ZONE BREAKERS:	SIEMENS CATALOG # BQ2B020QLD-TC1Q1

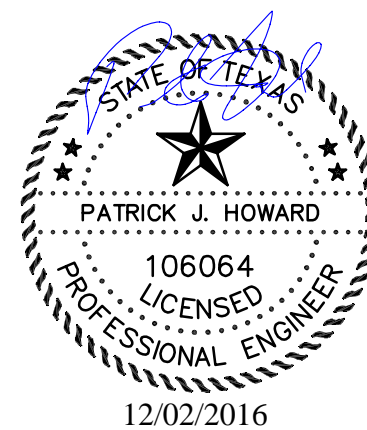
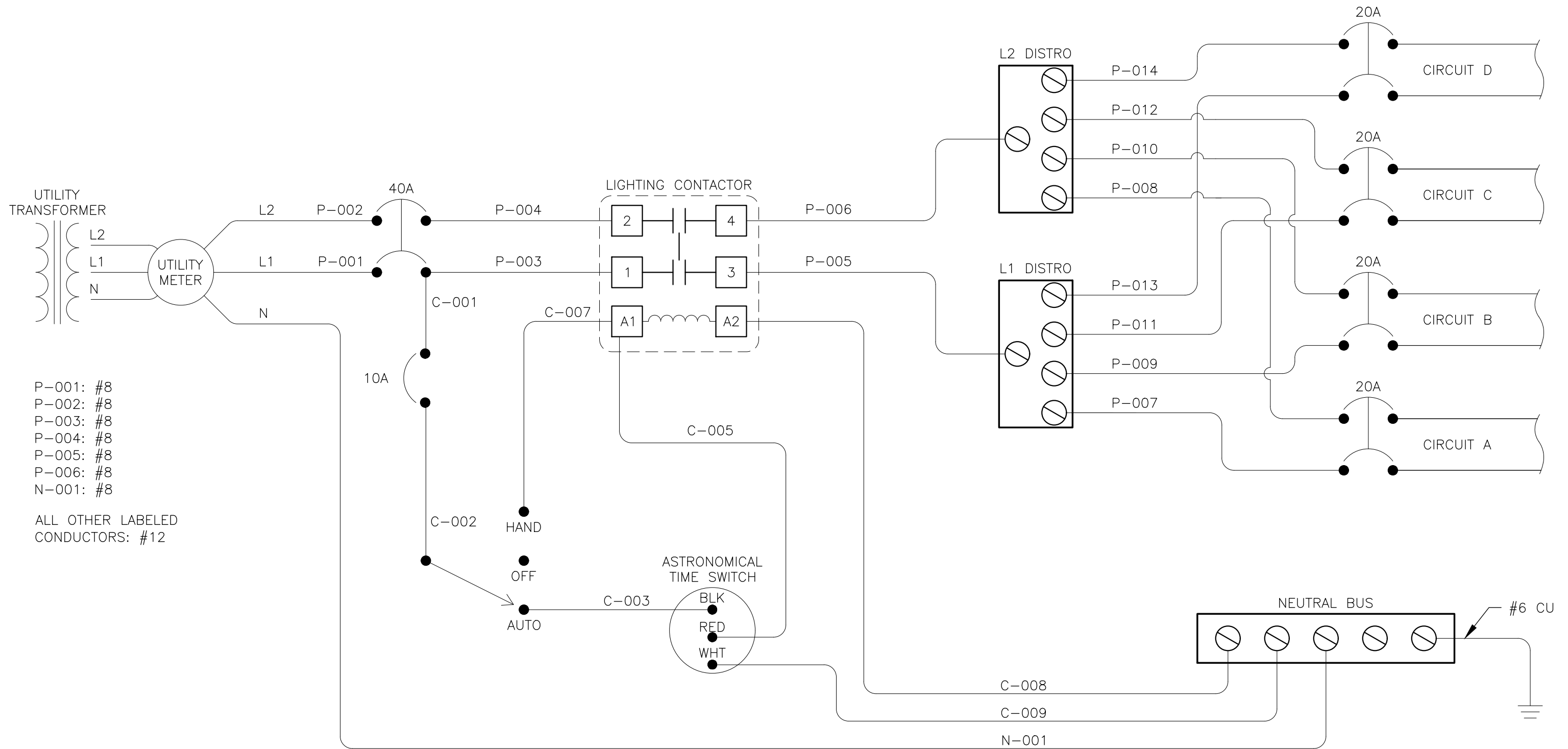


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DETAIL #402-7

CONTROL PANEL COMPONENT LAYOUT

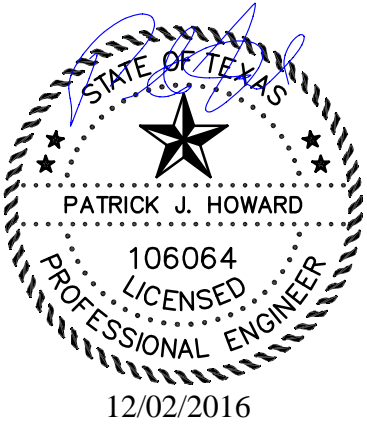
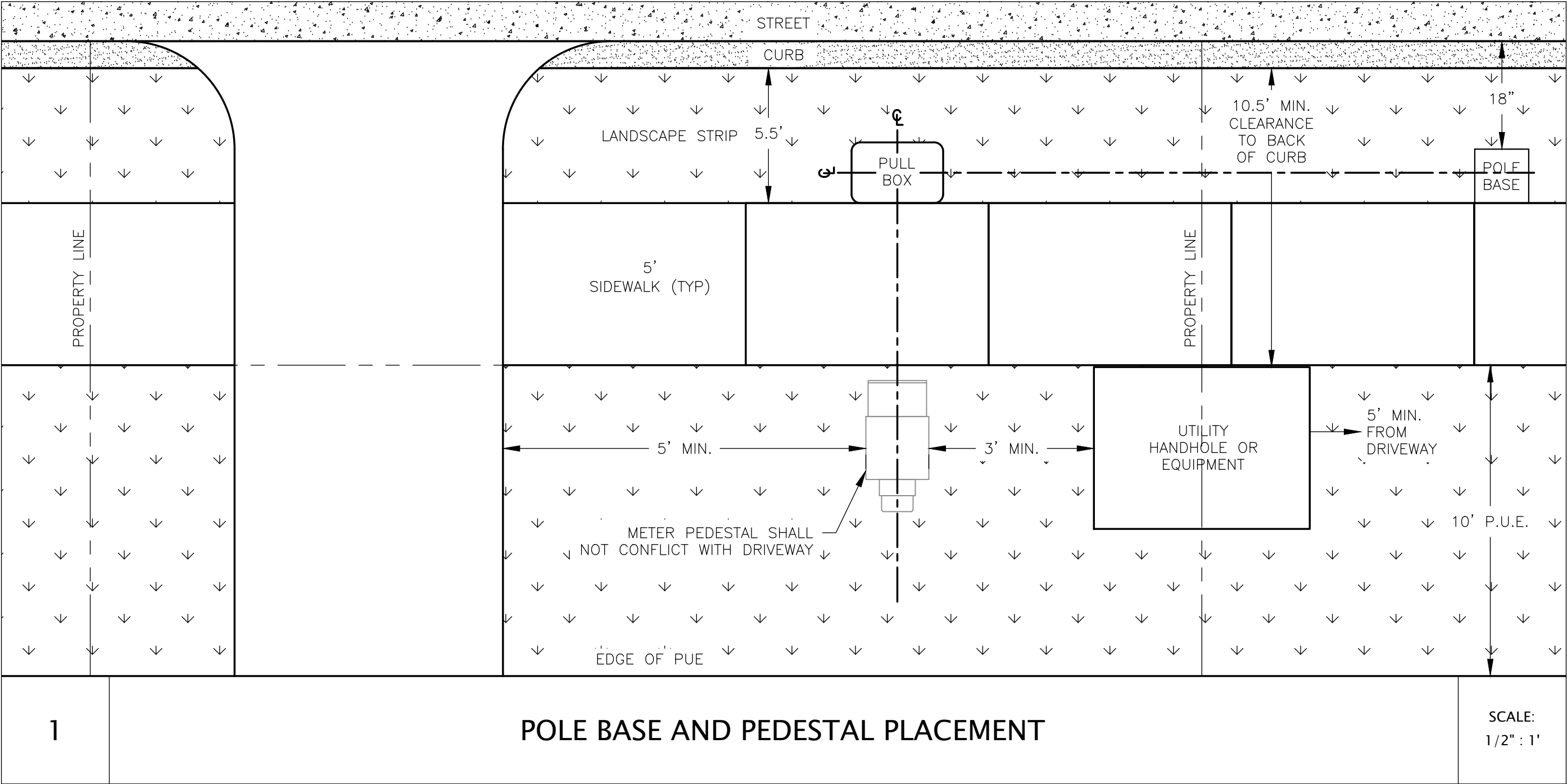
CONSTRUCTION SET



City of Leander, Texas

DETAIL #402-8
CONTROL PANEL SCHEMATIC

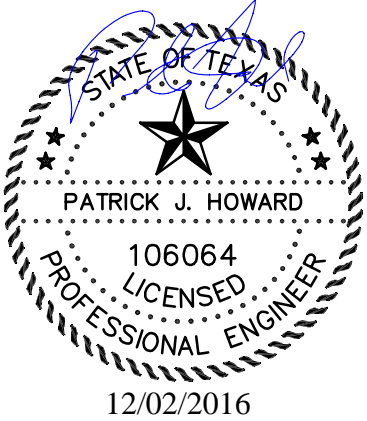
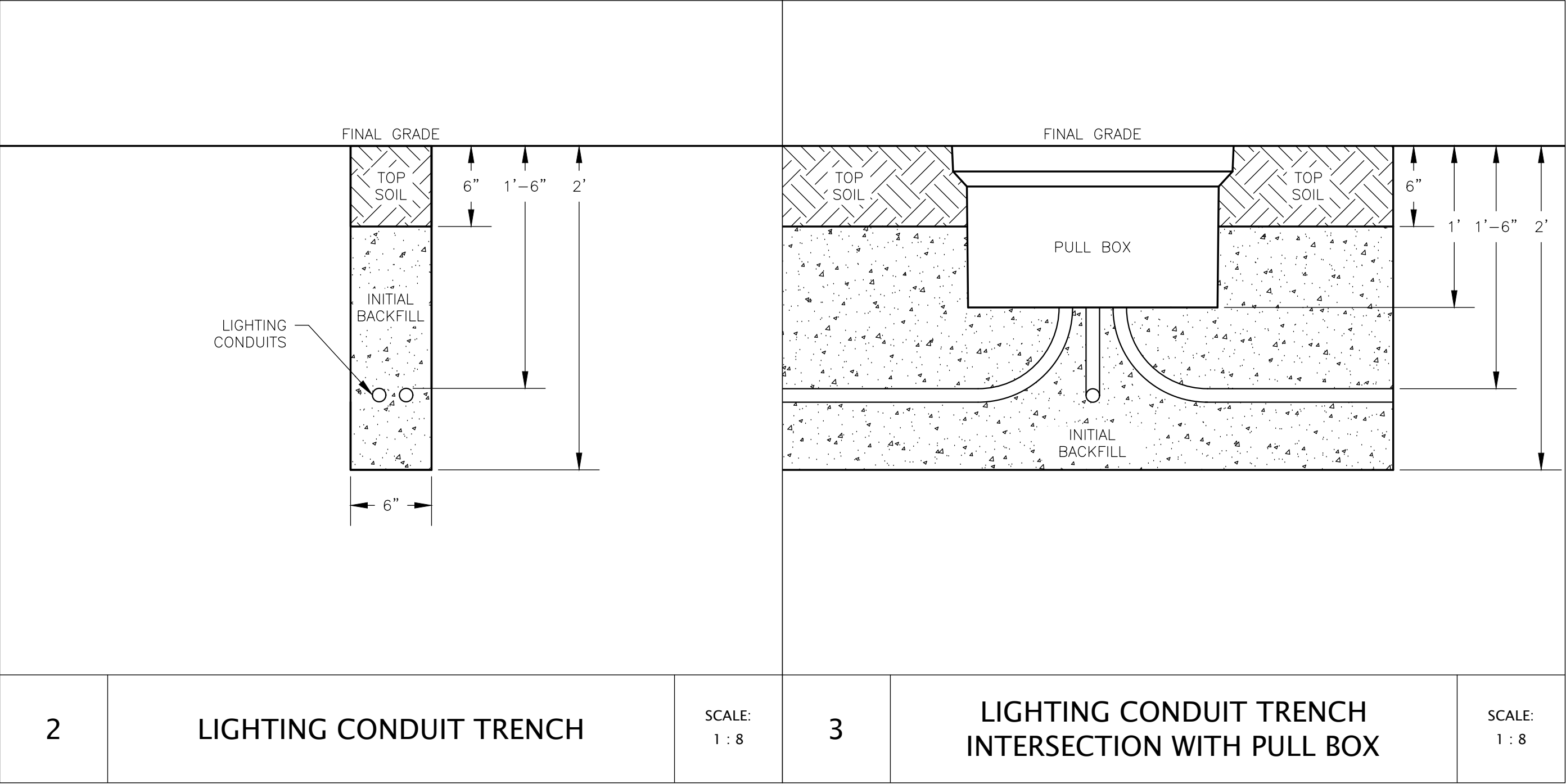
CONSTRUCTION SET

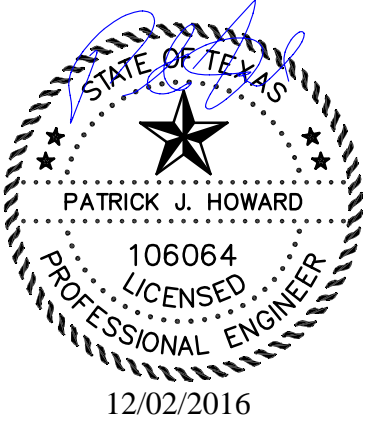
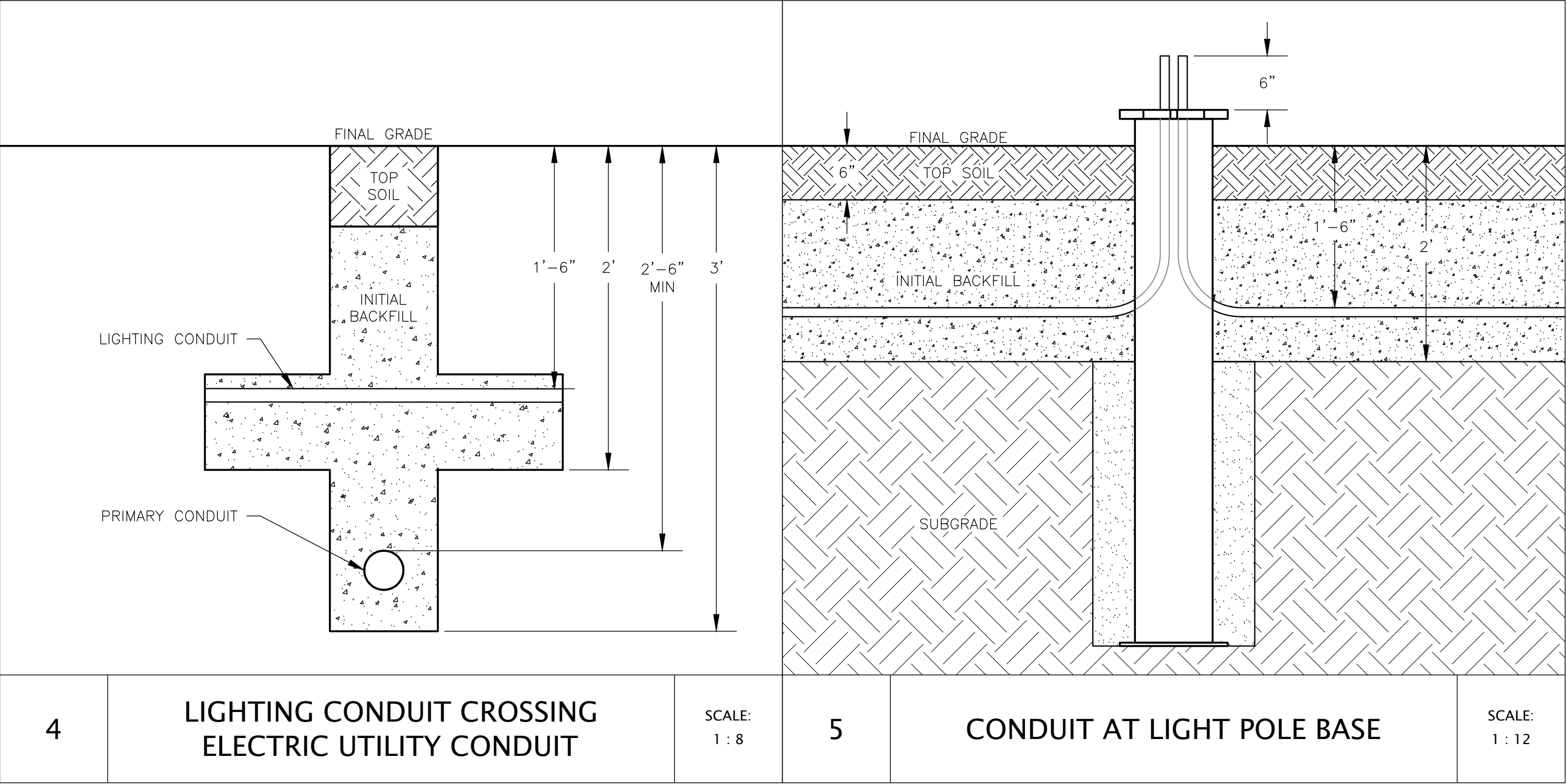


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CONSTRUCTION SET



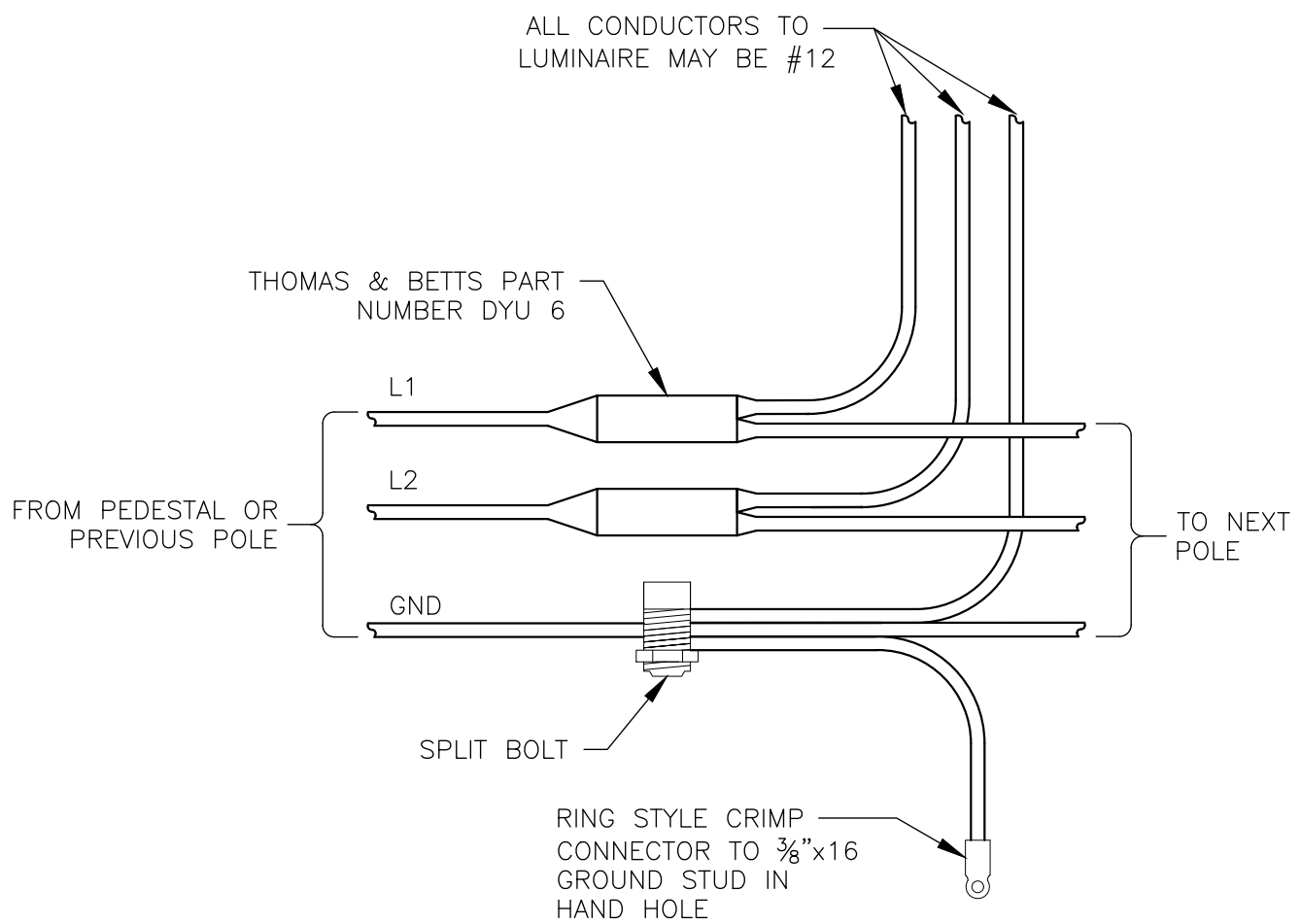


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DETAIL #402-11
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CONSTRUCTION SET

L1 SHALL BE MARKED WITH BLACK ELECTRICAL TAPE OR INSULATION COLOR
L2 SHALL BE MARKED WITH RED ELECTRICAL TAPE OR INSULATION COLOR
NEUTRAL SHALL BE MARKED WITH WHITE ELECTRICAL TAPE OR INSULATION COLOR
GROUND SHALL BE MARKED WITH GREEN ELECTRICAL TAPE OR INSULATION COLOR



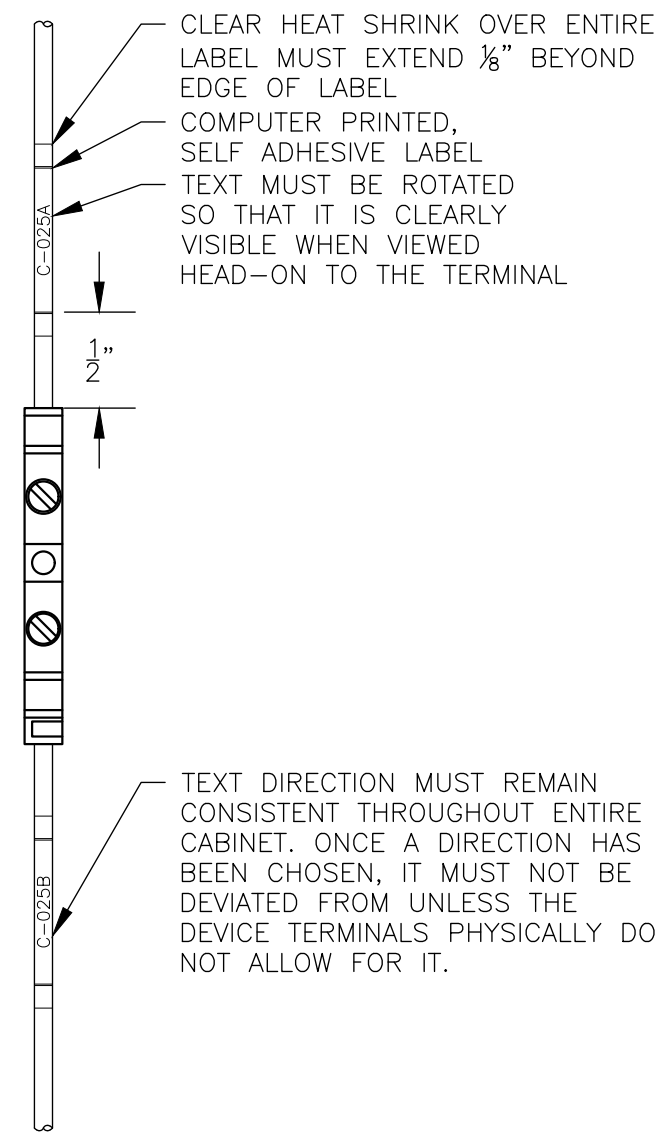
ALL CABLES AND CONDUCTORS ARE REQUIRED TO BE LABELED. CABLE NUMBERS DESIGNATED IN THE SCHEMATICS ARE TO BE USED ON THE SPECIFIED CABLE ONLY. CABLE MUST BE LABELED ON BOTH ENDS WITH IDENTICAL LABEL TEXT UNLESS THE LENGTH OF CABLE WOULD RENDER TWO LABELS IMPRACTICAL OR ILLEGIBLE.

LABELS SHALL BE CONSTRUCTED IN ONE OF THE TWO FOLLOWING METHODS.

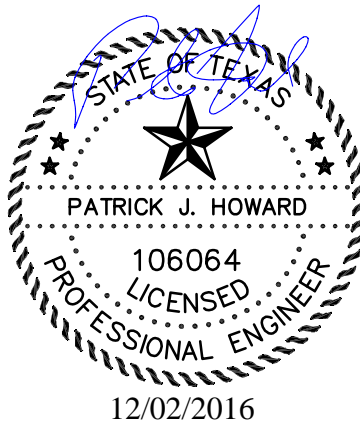
1: COMPUTER PRINTED, SELF LAMINATING LABELS SHALL BE APPLIED TO EACH CABLE SO THAT THE TEXT IS CLEARLY VISIBLE WHEN VIEWING THE DEVICE OR TERMINAL HEAD-ON. CLEAR HEAT SHRINK MUST BE APPLIED OVER THE LABEL AND PROPERLY SHRUNK TO BE FREE OF AIR BUBBLES AND DISCOLORATIONS.

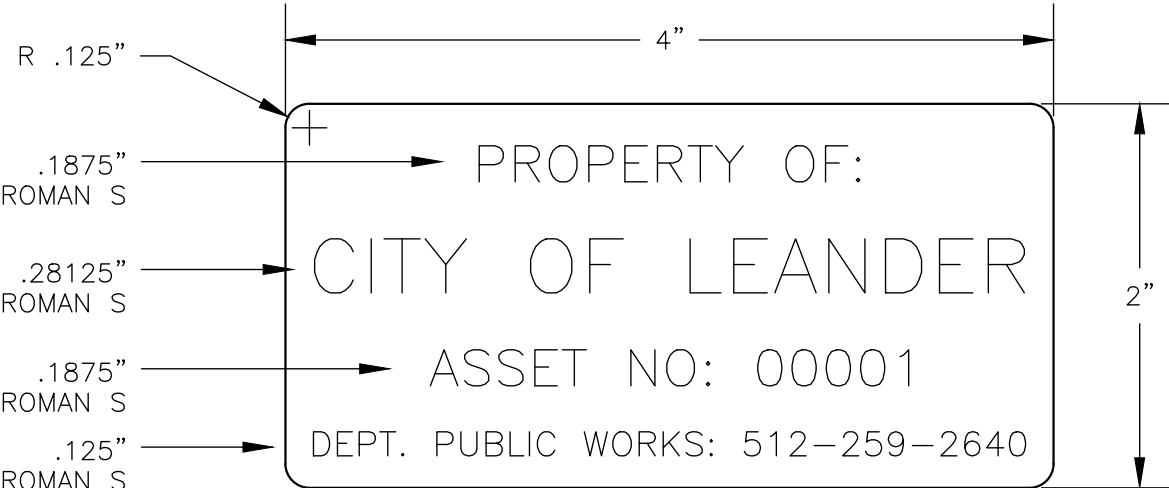
2: AS AN ALTERNATIVE TO METHOD ONE, THERMALLY PRINTED POLYOLEFIN HEAT SHRINK LABELS ARE ACCEPTABLE. OBSERVE THE SAME POSITIONING AND ROTATION REQUIREMENTS AS METHOD ONE.

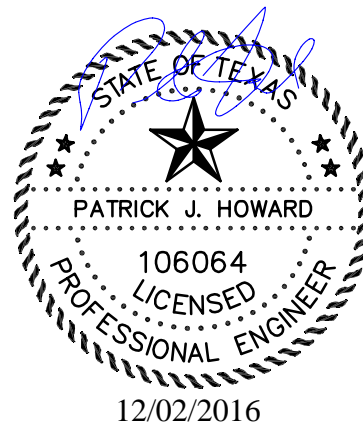
AT NO TIME SHALL HAND WRITTEN LABELS OR CLOTH NUMERICAL LABELS BE CONSIDERED ACCEPTABLE.



6	JUNCTION WIRING IN HAND HOLE	SCALE: 1 : 4	7	LIGHTING CONTROL CABINET CABLE LABELING STANDARD	SCALE: N/A
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 <p>CITY OF LEANDER ASSET TAG SHALL BE CONSTRUCTED OF STAINLESS STEEL. TEXT SHALL BE APPLIED BY LASER ETCHING. ALL FONTS, SIZES, AND POSITIONS ON THE TAG SHALL BE AS PER THIS DETAIL. ALL CORNERS SHALL HAVE A .125" FILLET.</p> <p>UPON INSPECTION AND APPROVAL OF THE RESIDENTIAL ROADWAY LIGHTING SYSTEM, THE CITY OF LEANDER WILL AFFIX AN ASSET TAG TO EACH LIGHTING CONTROL PANEL SIGNIFYING APPROVAL OF THE SYSTEM AND ASSUMPTION OF OWNERSHIP. ASSET TAGS SHALL BE AFFIXED TO THE PANEL WITH INCLUDED 3M 9472 ADHESIVE.</p> <p>THIS LABEL DESIGN IS KEPT ON FILE AND MAY BE ORDERED FROM:</p> <p>THE CUTTING EDGE 4843 NORTH RIDGE ROAD PERRY, OHIO 44081-9716 1-800-962-2376 WWW.CUTTINGEDGEINC.COM</p>					
8	CITY OF LEANDER ASSET TAG	SCALE: 1 : 1	9	ASSET TAG MOUNTING LOCATION	SCALE: 1:4



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DETAIL #402-13
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CONSTRUCTION SET